

**GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM**  
**Instrument Procedures Group**  
**October 17, 2006**  
**HISTORY RECORD**

**FAA Control # 06-02-268**

**Subject:** Lack of Graphic Obstacle Departure Procedures (ODPs).

**Background/Discussion:** Order 8260.46C, "Departure Procedures (DP) Program", paragraph 10b(3)(a) states in part:

*"Textual ODP instructions must not exceed a maximum of one turn, one altitude change, and one climb gradient."*

If the ODP has more than one turn, altitude change, or climb gradient, it must be charted as a graphical procedure.

There has been sufficient time since the order was first written for the NFPG to have developed many graphical ODPs. Other than RNAV ODPs (which must be graphical regardless of complexity), and a few non-RNAV ODPs graphically charted at the request of ATC, there has been virtually no progress in this arena. Just a cursory examination of mountainous area ODPs will reveal many complex textual procedures that should have long since been converted. An example is KPUC, Carbon County Airport, Price, Utah:

TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE										
Rwy 25			Rwy 18		Rwy 14		Rwy 7			
Adequate Vis Ref	STD		With Min climb of 215'/NM to 8000'		With Min climb of 230'/NM to 8000'		With Min climb of 350'/NM to 6500'			
			Adequate Vis Ref	STD	Adequate Vis Ref	STD	Adequate Vis Ref	STD		
1 & 2 Eng	1/4	1	1/4	1	1/4	1	1/4	1		
3 & 4 Eng	1/4	1/2	1/4	1/2	1/4	1/2	1/4	1/2		
TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE						FOR FILING AS ALTERNATE				
Rwy 32			Rwy 36			VOR DME Rwy 36		VOR Rwy 36		Other
With Min climb of 410'/NM to 7200'		Other	With Min climb of 465'/NM to 8400'		Other					
Adequate Vis Ref	STD		Adequate Vis Ref	STD						
1 & 2 Eng	1/4	1	900-3	1/4	1	1900-3	A	800-2	2000-2	NA
3 & 4 Eng	1/4	1/2		1/4	1/2		1900-3	B	900-2 1/2	
						C	1100-3			
						D				
OBSTACLE DP: Rwy 14, climbing left turn heading 140°; Rwy 18, 25, 32, climbing left turn heading 082°; Rwy 7, 36, climbing right turn heading 172°; All aircraft climb via PUC VOR R-127 to 8000' within 10 miles of PUC VOR, then climbing right						turn via PUC VOR R-164 to PUC VOR. Climb in PUC VOR holding pattern (hold South, right turns, 009° inbound) to cross PUC VOR at or above MEA for direction of flight, then climb on course.				

It was a consensus of the Aeronautical Charting Forum several years ago that human-factors considerations mandated the graphical charting of complex ODPs, and that safety-of-flight would be significantly enhanced by the graphical portrayal of complex ODPs.

**Recommendations:** The National Flight Procedures Group needs to adhere to the requirements of Order 8260.46C. If concurrence cannot be obtained it is recommended that the chairs of the Aeronautical Charting Forum write to Mr. Tom Accardi, Director, Technical Operations Aviation System Standards Office, AJW-3, to remind him of the mandates of this order.

Consideration should be given to making an exception for complex ODPs at major Part 139 airports where SIDs or radar vectors are always used for IFR departures.

**Comments:** This recommendation affects no FAA orders or policies as to the first recommendation and affects Order 8260.46C and Order 8260.19C as to the second recommendation.

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**Date:** September 12, 2006

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**Initial Discussion Meeting 06-02:** New issue introduced by Rich Boll, NBAA. FAA Order 8260.46C "Departure Procedure (DP) Program" states in part: "Textual ODP instructions must not exceed a maximum of one turn, one altitude change, and one climb gradient." If the criteria are not met, it must be charted as a graphical procedure. NBAA believes there has been sufficient time since the order was first written for the NFBG to have converted complex ODPs from textual to graphic depiction. However, a cursory review of mountainous airports shows many complex departure procedures still depicted textually; e.g., Price, UT, Carbon County Airport (KPUC). Danny Hamilton, NFBG, responded that new policy and criteria changes require resources to implement. The NFBG does not have the resources to update current procedures while developing new procedures to meet the Administrator's goal of a performance-based NAS. He requested that user agencies forward specific concerns to the RAPT who will establish priority for corrective action. Mitch Scott, Continental Airlines, noted that graphic DPs are coded; however, textual DPs are not. He asked to whom concerns should be sent. Danny responded, the ATO Service Area Flight Procedures Office. Both Mitch and Rich Boll, NBAA, agreed to send a list of their top 10 locations to the NFBG for attention and accelerated conversion. Bill Hammett, AFS-420 (ISI), stated that an AFS-400 memorandum had been sent to AVN on September 15<sup>th</sup> highlighting DP charting/development discrepancies and recommending a 3-step QA process to help eliminate errors. The memorandum also noted many complex ODPs should be charted graphically and included a simple checklist to help adhere to the requirements of Order 8260.46. No response has been received. **ACTION:** Continental Airlines and NBAA.

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**MEETING 07-01:** Both Mitch Scott, Continental Airlines, and Rich Boll, NBAA, reported that each forwarded a list of their top 10 locations of concern to the ACF-IPG Chair, who, in-turn forwarded the list to the NFPO for action. Brad Rush, AJW-321, briefed that the lists have been received and the locations have been added to the production schedule. Mitch asked what procedure should be followed for other airports of concern. Brad recommended forwarding additional requests to the servicing FPO. Bill Hammett, AFS-420 (ISI), stated that the AFS-400 memorandum of September 15, 2006, which had been sent to AJW-3 highlighting ODP charting/development discrepancies and recommending a 3-step QA process to help eliminate errors has been received and is being acted upon. **ACTION: AJW-321.**

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**MEETING 07-02:** Brad Rush briefed that the NFPO is still addressing the complex ODP lists submitted by NBAA and Continental Airlines as well as correcting the discrepancies noted in the AFS-420 memorandum of September 15, 2006. Brad estimates all work will be complete by July 2008. Rich Boll, NBAA, noted that the lists only contained the airports of high interest by NBAA and Continental; there are many other complex ODPs that should be published graphically under current policy. Brad responded that other complex ODPs will be addressed as workload permits. In the interim, he requested NBAA contact the NFPO if there are other airports that require priority. Rich also noted there are some discrepancies between Jeppesen and NACO charts as to labeling of ODPs and SIDs. The distinction is important to pilots. For example, the Grand Junction Four Departure at Grand Junction, CO (KGJT) is labeled as an "OBSTACLE" DP while the NACO publishes it as a SID. He questioned whether this is an isolated occurrence, or are there others. Brad Rush, NFPO, replied several SIDs that incorrectly included (OBSTACLE) in the title were identified in the AFS-400 memorandum and corrections were forwarded to NFDC. Valerie Watson, AJW-321, (who responded as there was no NFDC representative in attendance) briefed that several SID titles were corrected in the NFDD add-on page relating to the reclassification of RNAV DPs from Type A/B to RNAV-1/2. Ted Thompson, Jeppesen, agreed to check the Jeppesen charts against the locations on the FAA's spreadsheet and the NACO charts. Brad agreed to resend the information to Ted. Brad will provide an update briefing on actions to resolve the issue. **ACTION: AJW-321 and Jeppesen.**

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**Meeting 08-02:** Brad Rush briefed that the NFPO is still addressing the complex ODP lists submitted by NBAA and Continental Airlines as well as correcting the discrepancies noted in the AFS-420 memorandum of September 15, 2006. He estimates all work relating to the AFS-420 discrepancy list will be complete by July 31, 2008. Brad also added that all complex ODPs on the NBAA and Continental priority lists (see Editor's note below), as well as KDCA, which was requested by ALPA, are being reviewed to determine whether they meet graphic charting requirements. Those that do are then being entered into the NFPO Production schedule for conversion to graphic depiction. Rich Boll, NBAA, commented that he had checked the list and didn't see all the requested ODPs. Brad will follow this up. Per tasking at the last meeting, Ted Thompson, Jeppesen, stated that Jeppesen received the FAA's spreadsheet revising SID designations and corrected what Jeppesen charts had incorrect titles. He noted that the 8260-15B for the SID at Grand Junction, CO did have the "Obstacle" box checked. Brad agreed to validate the source for this procedure and coordinate the results with Ted. Rich Boll, NBAA, stated that he had also discovered several RNAV STARS that still had the "Type A/B" annotation vice "RNAV 1/2. Rich agreed to forward these to procedures to Brad and Ted to resolve. **ACTION: AJW-321 and NBAA.**


**Editor's Note:** Post meeting, Brad Rush noted that three of the requested locations (Sheppard AFB/Wichita Falls Muni, TX, Eielson and Elmendorf AFBs, AK) for graphic ODP depiction are under the purview of the USAF. Tom Schneider, AFS-420, has forwarded the request for graphic publication of these ODPs to AFFSA.

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**MEETING 08-02:** Brad Rush briefed that the NFPO is still addressing the complex ODP lists submitted by NBAA and Continental Airlines as well as correcting the discrepancies noted in the AFS-420 memorandum of September 15, 2006. He provided a production schedule, which is attached here . Brad further briefed that the NFPO's first action was to conduct an evaluation to see if the identified procedures qualified for graphic portrayal under the guidelines of Order 8260.46C. Once that evaluation was completed the selected ODPs were put into production. Rich Boll, NBAA, then pointed out several ODPs (Scottsdale, Pocatello, Durango and Cold Bay ) that were on the NFPO list as "does not qualify" appear to be complex by the Order's definition. Brad agreed to re-evaluate the airports in question. Roy Maxwell, Delta, recommended the specifications be re-evaluated and that all ODPs be published graphically. This would assure pilot understanding. Mark Ingram, ALPA, added that graphic ODPs are included in the avionics database, whereas textual ODPs are not. Roy added that there are real problems when "flatland" pilots transition to flying in mountainous areas. He further asked whether there is a process to change the standards. Bill Hammett, AFS-420 (ISI), responded that the current standards for graphic depiction in Order 8260.46 (more than one turn, one altitude change, one climb gradient) have been in effect for quite a few years without question. The Order is currently undergoing revision and, as is normal, government, as well as industry will have an opportunity to provide comments. This would be the time to request changes to the standard; however, Bill added that some ODPs are too simple; e.g., "Climb runway heading to 1000 before turning left"; "Climb direct ABC VOR, then proceed on course"; etc. to require graphic depiction. Brad agreed to re-evaluate airports in question and continue efforts to graphically chart complex ODPs and report progress. **Item Open (AJW-321).**

**Editor's Note:** After the meeting, Brad Rush, NFPO, advised they reviewed the locations in question again and only one runway at Scottsdale meets requirements for a graphic ODP. It was added to the NFPO production schedule.

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**MEETING 08-02:** Brad Rush briefed that the NFPO is still addressing the complex ODP lists submitted by NBAA and Continental Airlines as well as correcting the discrepancies noted in the AFS-420 memorandum of September 15, 2006. As requested at the last meeting several airports were re-evaluated. Scottsdale, AZ does qualify for a graphic depiction and has been added to the production schedule, a copy of which is attached here . Brad recommended the issue be closed and the group concurred. **Item CLOSED.**

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